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FEDERAL-GRANT RESEARCH

at the

STATE AGRICULTURAL

EXPERIMENT STATIONS

Projects on

ECONOMICS OF MARKETING

Part 14, Section d

Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

Compiled by

the State Experiment Stations Division, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C., for use of workers in agricultural research in the subject-matter areas presented. For information on specific research projects write to the Director of the Station where the research is being conducted.

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Section d: Dairy Products

Contents

INTRODUCTION

This compilation is one of a series providing information on State agricultural experiment station research supported by Federal-grant funds appropriated annually by Congress under authorization of the Hatch Act of 1887, as amended and approved Aug. 11, 1955, and Section 204(b) of the Agricultural Marketing Act of 1946. It is prepared for use by research workers in the subject-matter areas presented. Only that part of each State's research program supported by Federal-grant moneys is included.

In addition to the Federal-grant moneys, the State experiment stations receive some Federal support through cooperative agreements or contracts with the U. S. Department of Agriculture. Information on such research, along with other departmental research, is available in the Central Project Office, Agricultural Research Service.

A substantial part of each State agricultural experiment station's research is supported with moneys appropriated by the respective State or Territorial Legislatures and through other forms of private and public financing. Information on current agricultural research at the stations which is not financed under the Federal-grant program or through USDA cooperation can be obtained from experiment station directors.

The information given in the series of Federal-grant compilations includes the title and objectives of each Federal-grant project pertaining to the subject given on the cover. The identification of each project gives the department(s) conducting the research, the station number of the project, and the number of the regional project if it is a contributing project.

Relevant regional projects, if any, appear at the end of the compilation. States having projects contributing to regional projects are indicated. The Roman numeral (and capital letter) refer to the location in the summary of the contributing project title and objectives. The States are grouped into four major regions. These are designated NC-North Central, NE-Northeastern, S-Southern, and W-Western. The capital letter "M" following the letters for the region indicates regional marketing projects.

MAJOR MARKETING FUNCTIONS AND TYPE OF STUDIES INCLUDED UNDER EACH

A. Market Structure and Functional Operation
Marketing channels; organization of markets; operating policies and buying and selling practices in handling, storing, and distribution; availability and needs for facilities and services at various stages in the marketing process; competitive structure of markets; integration in the marketing process; impacts of technological changes.

B. Market Prices--Supply, Demand, Consumption, and Other Market Forces
Elasticities of demand; demand schedules and changes in aggregate consumer demands; consumption trends; competitive position of different products; prices at different market levels--farm, wholesale, and retail--and their relationships; price differentiation and other pricing policies; quality premiums and discounts; how prices are determined.

C. Consumer Preference, Acceptance, and Merchandising
Forms and amounts of family purchases; methods of processing and preparation for acceptability; consumer preference and buying behavior; motivations underlying consumer practices in buying; product promotion and buying practices.

D. Grades and Standards
Economic implication to producers and consumers of quality groupings and standardization; consumer recognition of grades and qualities; economics of quality control and maintenance.

E. Market Information
Developing outlook and situation reports and forecasts; methods of improving statistical reports and news service releases on market receipts and movements, prices, stocks; ways of disseminating market information; kinds of market information needed and forms in which it is most useful; ability to use market information; methods of obtaining information; accuracy of information.

F. Maintaining and Improving Quality--Costs and Returns
Economic aspects of measures to preserve and control quality and avoid losses of quality of products; facilities for proper storage; grading and quality improvement programs.

G. Costs, Margins, and Efficiency of Operation
Mark-ups, spreads, and discounts; the composition of margins; operating costs and returns and their measurement; input-output relationships and economies of scale; design and operation of facilities and equipment; work methods and organization; factors affecting efficiency.

H. Transportation, Storage, and Interregional Competition
Transportation and storage rates and charges; effect of rate structure on movement of products; truck versus rail; transportation costs and storage as related to price and production patterns; influence of transportation cost upon scale of operation of processing plants; interstate trade barriers.

I. Cooperatives
Services rendered and charges made; efficiency of operations; membership relationships; methods of financing; internal management policies and practices; function and place in the marketing system.

J. Government Programs
Public regulation of markets, product quality, and trading practices; impacts of parity formulas, price supports, storage programs, surplus disposal, and special measures to increase consumption on particular commodities and the agricultural economy in general.

K. Utilization (Economics of)
Economic feasibility of processing and marketing new products or existing products in new forms and uses; competition between new and established products and between commodities of agricultural and those of nonagricultural origin; measuring potential demand for new or improved products and services; product development and market testing; economics of waste and byproduct utilization.

DAIRY PRODUCTS

Market Structure and Functional Operation

Fla. The Effects of Inter- and Intra- Market Competition on Milk Production and Utilization in Central and South Florida. To determine nature of inter- and intra-market competition for milk and its possible effect on production and use in Central and South Florida.
Agr. Econ. 651

Iowa Economic Adjustments in the Dairy Industry. To (1) evaluate means the dairy industry can use to adapt to changing utilization and technology; and (2) evaluate the effects of various institutions involved in the marketing of dairy products.
Agr. Econ. & Rur. Sociol. 1318 (NCM-12) Coop. AMS

Maine Milk Production Quotas for Local Maine Markets. To (1) evaluate effect of various quota systems on annual and seasonal pattern of milk production, plant deliveries and on producer returns; and (2) devise a workable method of establishing and operating a quota or base-excess plan for local market producers.
Agr. Econ. 111 (NEM-13)

Md. Pooling Arrangements and Quota Plans in Maryland Fluid Milk Market. To (1) learn effects of pooling arrangements on milk supplies and use, including seasonality, quality, sources and characteristics of supply, balance between fluid milk receipts and milk sales, entry of new producers, and class use allocations of supply in the market; (2) learn influence of pooling arrangements on competition and income distribution between markets and among handlers and producers; and (3) evaluate influence of various quota systems on the annual and seasonal patterns of milk production, and on producer returns.
Agr. Econ. A-26-aw (NEM-13) Coop. AMS

Miss. Institutional Forces Affecting the Grade A Milk Industry of Mississippi. To (1) learn location of grade A milk producers and production relative to consuming areas; (2) describe institutional requirements for grade A milk production, for a particular market, within producing area; (3) analyze differences in requirements for different areas for grade A milk production; and (4) evaluate and compare the impacts of these forces upon areas directly and indirectly affected and offer possible alternatives.
Agr. Econ. HA-19

Mo. Impact of the Expansion of Milk Distribution Areas upon Competitive Practices and Patterns of Distribution. To (1) identify and appraise factors responsible for changes in milk distribution areas; (2) evaluate significance of this expansion; (3) determine effect of expansion in milk distribution areas upon competitive practices in sale of bottled milk; and (4) formulate recommendations for further adjustments in distribution system to increase its efficiency.
Agr. Econ. 199 (NCM-12)

Ohio An Analysis of Market Milk Distribution Systems. To (1) study and analyze various market milk distribution systems in Ohio; (2) determine effect of price on consumer purchases; (3) determine consumer preferences for sizes and types of containers; (4) determine and analyze trends in retail home delivered and retail store sales; (5) determine cost differences in various distribution systems; and (6) determine from cost standpoint various consumer services in milk distribution.
Agr. Econ. ES 245

Pa. Producer Quotas for Market Milk. To (1) learn and describe some of the effects of using producer quotas in marketing of milk, particularly the effects on volume of milk for non-fluid uses; and (2) evaluate applicability of fixed quotas to secondary markets.
Agr. Econ. & Rur. Sociol. 1262-C (NEM-13)

R. I. Use of Producers Sales Quotas in the Rhode Island Milkshed. To (1) ascertain effectiveness of producer quota system in Rhode Island in controlling seasonal and total supply variations; and (2) learn potential for producer supply adjustments in response to a quota system, and impact of various adjustments on producer and dealer efficiency and returns.
Agr. Econ. M-111 (NEM-13) Coop. AMS

S. Dak. Problems of Economic Adjustments in the Dairy Industry in Areas of Sparse Production. To (1) study farm handling practices for milk and cream in northern plains and analyze their relation to quality; (2) examine alternative methods of butterfat assembly and appraise their relative advantage; (3) ascertain relation of prices paid to producers to quality and volume of butterfat supplies; and (4) evaluate possible adjustments in processing and merchandising dairy products in northern plains.
Agr. Econ. 305-2 (NCM-12) Coop. AMS

S. Dak. Adapting the Marketing Structure for Dairy Products to Changing Patterns of Utilization and Changing Technology. To learn means of adapting marketing structure for dairy products to changing patterns of use and technological innovations in assembly, processing, and distribution with emphasis on ways of increasing efficiency in use of labor and physical facilities and an evaluation of the economic effects of trade practices; national, state and local government regulation; state-national marketing service and educational programs; federal price support programs and other institutional factors.
Agr. Econ. 305-5 (NCM-12) Coop. AMS

Market Prices - Supply, Demand, Consumption, and Other Market Forces

Ala. Developing Guides for the Marketing of Fluid Milk in Alabama. To (1) develop formulas to be used as a guide by Milk Control Board in establishing milk prices at wholesale and retail level for marketing areas of State; (2) compare selected market areas under present pricing systems, with such alternative pricing systems as those of Federal Milk Orders, Collective Bargaining Associations, Producer Cooperative Associations, or combinations of these when used with a State Milk Control Board; and (3) develop alternative means of promoting sales technically and economically feasible and in conformity with legal requirements.
Agr. Econ. 583

Ariz. Effectiveness of Programs Designed to Increase the Consumption of Dairy Products. To measure effect of specific programs and techniques on sales of dairy products in Arizona, emphasizing: (1) effect of increasing availability of fluid milk on consumption; (2) effectiveness of promotional activity on per capita consumption of milk; and (3) effects of specific techniques on school lunch program.
Agr. Econ. (WM-36)

Ark. Adapting the Market Structure for Dairy Products to Changing Demand and Supply Conditions in the South. To learn (1) effect of price and income changes on fluid milk supply and utilization; (2) substitutability among dairy products and between dairy products and other products; and (3) milk supply and price relationships and movement of milk among markets.
Agr. Econ. & Rur. Sociol. 411 (SM-10) Coop. AMS

Colo. Needed Adjustments in the Fluid Milk Marketing in Colorado. To (1) determine extent of and competition between milk sheds for Colorado markets; (2) determine methods, conditions, and extent of expansion of milk distribution area in Colorado; (3) analyze and evaluate impact on farmers prices for milk of competition between milk sheds; (4) analyze and evaluate effect on market outlets for farmers of expansion in milk distribution areas; (5) analyze and evaluate impact on retail milk prices as well as effect on availability of milk and services to consumers; and (6) interpret effects of expansion of supply and distribution areas into methods and practices to increase efficiency of fluid milk marketing in use of resources.

Agr. Econ., Dairy Husb. 216 (WM-15) Coop. AMS

Storrs (Conn.) Effects of Various Pricing Techniques on Production and Reserve Supplies in Fluid Milksheds. To determine effects, primary and secondary, of various pricing techniques affecting volume of and prices received for reserve supplies in fluid milksheds.

Agr. Econ. 212 (NEM-13)

Ga. The Effect of Price, Price Relationships, and Income on Fluid Milk Utilization. To determine (1) effect of price and income changes on fluid milk use; and (2) rate of substitution among dairy products and between dairy products and other products with various price relationships.

Agr. Econ. M-10 (SM-10)

Ga. Demand and Prospective Demand for Milk and Dairy Products in the South. To estimate the current and prospective aggregate demand (utilization) for milk and dairy products for specific geographic areas of the South.

Agr. Econ. M-109 (SM-10) Coop. AMS

Hawaii The Market Potential for Dairy Products in Hawaii. To (1) measure present purchases and preferences for dairy products in Hawaii; (2) evaluate possibilities of expanding use of locally produced dairy products in light of existing consumption pattern; and (3) consider selected and specific methods that might be employed to stimulate use of fluid milk, processed milk, ice cream, cheese, and butter.

Agr. Econ. 365 (WM-36)

Idaho Effectiveness of Sales Promotion and Advertising in Increasing the Consumption of Dairy Products. To (1) learn what sales promotion and advertising is being carried on in state, how it's done and methods considered most effective by dairy industry; (2) develop, test, and evaluate methods of sales promotion and advertising for the dairy industry; (3) learn effect of quality or variation in quality on sales; (4) learn substitution effects, of one dairy product for another when one is promoted; and (5) evaluate total effect of advertising and promotion campaigns on entire industry.

Agr. Econ., Dairy Husb. 337 (WM-36) Coop. AMS

Ill. Opportunities for Expanding Milk Consumption in School Lunch Programs. To (1) determine actual and potential consumption of milk in school lunch programs; (2) determine reasons for variation in milk consumption rates among schools; and (3) develop practical suggestions for expanding milk consumption in schools.
Agr. Econ. 05-341 (NCM-12)

Ind. An Economic Analysis of Factors Affecting Milk Prices. To (1) obtain information on relative importance of firm and group policies on producer and retail prices of milk in selected Indiana cities; (2) determine kinds and amount of competition among dealers and producers under different market conditions; and (3) analyze economic effects of major technological changes in milk procurement and distribution on dealer and producer policies, on kinds and amount of competition, and on producer and retail milk prices.
Agr. Econ., Dairy Husb. ES 250

Ky. Factors Concerned and Techniques for Expanding the Use of Milk and Dairy Products. To (1) appraise impacts of changing distribution patterns on supply, demand, and prices of milk; (2) study marketing and merchandising techniques that influence demand and sales; and (3) determine what adjustments in production, marketing, and pricing offer greatest promise in maximizing consumption and/or increasing income to dairy industry.
Agr. Econ. 34 (NCM-12) Coop. AMS

La. Fluid Milk Supplies, Prices, and Movement in Milk Markets of Louisiana and Lower Mississippi Valley Marketing Areas. To (1) estimate the supply-consumption balance by areas of population concentration; (2) learn producer prices and retail prices as reported by handlers by parishes or centers of population concentration; (3) learn milk flows (packaged and/or bulk) on a monthly basis; and (4) evaluate milk flows relative to existing milk prices, including cost of transportation on movements of milk.
Agr. Econ. 929 (SM-10) Coop. AMS

Md. Supplies and Utilization of Milk for Non-Fluid Uses in the Washington, D. C., Milkshed. To (1) determine quantities and methods of handling milk for non-fluid uses in Washington, D. C., milkshed; (2) establish volume of essential reserve for this market; and (3) appraise current methods of pricing, use, and handling of milk for non-fluid uses.
Agr. Econ., Dairy Husb. A-26-ap (NEM-13) Coop. AMS

Mass. The Economics of Balancing Supplies with Demand for Fluid Milk in Massachusetts Markets. To learn (1) methods used in balancing milk supplies with fluid milk sales and evaluate merits of various alternatives; (2) factors influencing dealers in balancing supplies with fluid sales; (3) effect on producer prices in larger markets of various methods used by smaller dealers in smaller markets in balancing supplies with fluid outlets; and (4) most economical areas for handling and processing supplies and search for most economical way of handling and pricing.
Agr. Econ., Farm Mgt. 145 (NEM-13) Coop. AMS

Mich. Marketing Surplus Milk in Fluid Milk Markets in Michigan. To determine the best combinations of facilities, prices, and institutions that will achieve low cost handling of surplus milk.
Agr. Econ. 839 (NCM-12)

Mich. Determination of Changes in Demand and Consumption Patterns for Food Products. Studies will be undertaken to determine expected changes in demand and consumption patterns for dairy products among various sectors of the population, when price, income, and other conditions change, by (1) determining what effect price changes (both real and money) have upon quantity purchased, and the associated time-lag in adjustment; (2) determining the effect of a change in income (both real and money) upon the quantity purchased and expenditure for various dairy products, and the time-lag, if any; and (3) measuring the effect of different prices and income levels upon substitution between different dairy products and between dairy products, other foods, and other relevant expenditure items.
Agr. Econ. ES 9

Miss. Source, Stability, and Utilization of Grade A Milk by Marketing Areas. To (1) estimate the supply-consumption balance by counties or areas of population concentration; (2) determine producer raw milk prices and selling prices of bottled milk on a monthly basis by counties or areas of population concentration; (3) determine milk flows on a monthly basis; and (4) evaluate milk flows relative to existing prices.
Agr. Econ., Dairy Husb. HA-20, RRFA-20 (SM-10)

Mo. Milk Supply Responses to Changes in Various Economic Factors, Including Milk and Other Commodity Prices, in the Greater Kansas City Marketing Area. To (1) discover factors influencing amount of milk supplied to greater Kansas City Market and use these factors in making future adjustments in market; (2) picture overall milk supply response trends and developments in Greater Marketing Area and the determinants of these trends and developments; and (3) establish prospective trends in milk production in above area and the anticipated influence of factors found active on these trends in the past.
Agr. Econ. 330

N. H. Package Milk Vending Machines as a Means of Increasing Fluid Milk Sales. To determine (1) extent of present use and factors affecting amount of sales; (2) amount and costs of servicing machines, costs of maintenance and volume needed for economical operation; and (3) consumption of milk from milk vending machines by different consumer groups relative to sales of soft drinks at same location.
Dairy Husb. 85

N. H. Alternative Markets and Prices for New Hampshire Milk Produced in Excess of Fluid Requirements with Particular Reference to the Boston Milkshed. To (1) describe and evaluate present method of using and pricing milk in non-fluid uses; (2) determine volume of essential reserves for fluid milk market; and (3) appraise methods of handling and sale to obtain optimum income from milk sales under existing market structure.
Agr. Econ. 95 (NEM-13)

N. Y. (Cornell) Supply and Utilization of Milk in the New York Milkshed. To develop basic information on annual and seasonal milk supplies and their use in New York Milkshed, including secondary market supplies.
Agr. Econ. 20-B (NEM-13)

N. Y. (Cornell) Effect of a Major Increase in Retail Prices of Fresh Whole Milk and Skim Milk Upon the Consumption of Fluid and Non-Fluid Milk Products. To (1) measure changes in consumer purchases of fluid whole milk and skim milk, powdered skim milk and evaporated milk associated with an expected 2 to 3¢ a quart increase in retail prices of fluid milk and skim milk; and (2) learn extent of substitution of non-fluid products for fresh fluid milk and skim milk in different uses.
Agr. Econ. 20-C (NEM-13)

N. Y. (Cornell) The Pricing and Distribution of Market Milk. To (1) study and evaluate different methods and techniques in pricing milk to producers and to consumers and develop recommendations for changes; (2) analyze trends and variations in consumption of milk and its products to determine effects of price and other factors upon consumption, and develop better measurements of per capita consumption in selected markets; (3) analyze and account for trends and variations in milk production, learn effect of price and other factors on production, and develop recommendations for maintaining a more satisfactory relationship between production and consumption; (4) study disposal of milk produced in excess of fluid sales to learn returns from different methods of disposal, and develop measures for more profitable disposal; (5) analyze spread between prices to producer and consumer prices, and account for changes in spread over time; (6) study distribution services, methods, facilities, and their effect upon distribution costs; (7) study and appraise management practices of distributors which affect labor efficiency; and (8) trace developments of milk control legislation, marketing orders, health department regulations, trade organization, and other institutional factors.
Agr. Econ. 28

N. Y. (Cornell) Inventory and Use of Various Milk Forms in 200 New York State Households. To (1) secure data on purchase and use of various milk forms among a random selection of 200 urban New York State households, observing changes occurring in their milk consumption patterns as a result of information about use; and (2) learn if processed milk products are used and considered as substitutes for fluid milk.

Econ. Household & Household Mgt. 210

Ohio The Pricing of Milk and Its Products, Marketing Surplus Milk in Ohio Fluid Milk Markets. To (1) develop information and analyses to help dairy companies and producers' cooperatives to evaluate desirability of alternative methods of providing facilities, institutional arrangements, etc., for efficient handling of surplus, and maximize total returns to producers; and (2) learn amount and disposition of milk delivered to Ohio fluid markets in excess of market needs.

Agr. Econ. & Rur. Sociol. 59 (NCM-12)

Oreg. Impact of Non-Fat Dried Milk Sales on the Consumption and Pricing of Fluid Milk. To (1) learn what proportion of population is using dried milk, how much is being used per family, how it is being used, and reasons for its use; (2) learn impact of dried milk sales on sales and consumption of fluid milk in selected Oregon cities; and (3) ascertain effect dried milk sales may have on future policies for pricing fluid milk at wholesale and retail levels.

Agr. Econ. 150-7 (WM-36)

Pa. Supply, Utilization, and Pricing of Milk for Non-Fluid Uses in Pennsylvania Markets. To (1) develop basic information regarding production and use of milk in milksheds in central and eastern Pennsylvania; (2) describe pricing of milk for non-fluid uses, including trends, variations among markets, and contribution of milk for non-fluid uses to blend prices; and (3) examine formulas used in pricing of same and compare various aspects of such formulas in State and other markets.

Agr. Econ. & Rur. Sociol. 1262-A (NEM-13)

R. I. The Production-Consumption Balance and Efficient Utilization of Milk for Non-Fluid Uses in Rhode Island. To (1) describe and evaluate sources of supply, organization, and operations of existing Rhode Island marketing system for handling and using milk in non-fluid uses; and (2) determine alternative methods to handle and use milk in fluid and non-fluid uses and appraise economic advantage of each.

Agr. Econ. M-103 (NEM-13) Coop. AMS

R. I. Relationships Between Consumption of Fluid Milk and Non-at Dry Milk Solids in Rhode Island. To (1) indicate relative changes which have occurred between consumption of fluid milk and non-fat dry milk solids in Rhode Island; and (2) estimate demand and substitution relationships between fluid milk and non-fat dry milk solids.
Agr. Econ., Dairy Indus. M-105 (NEM-14) Coop. AMS

S. C. The Effect of Price, Price Relationships, Population Characteristics and Income on Fluid Milk Utilization. To learn (1) effects of fluid milk prices and consumer incomes on fluid milk consumption; and (2) influence of price relationships on consumption ratio of fluid milk to powdered and canned milk.
Agr. Econ., Dairy Indus. 82 (SM-10) Coop. AMS

S. Dak. Consumer Preferences, Demand, and Potential Supply for Butter of Various Flavors and Qualities. To (1) learn range and intensity of consumer preferences for various flavors and qualities of butter and other spreads; (2) analyze cost of producing butter; (3) learn actual and potential supply of sweet cream butterfat available to dairy plants; (4) learn relative demand, potential markets, and costs of production for alternative dairy products and byproducts of butter manufacturing; (5) evaluate various methods of manufacturing and marketing butter and its byproducts; and (6) estimate potential benefits to dairy plants and farmers of a better adjustment to consumer demand in production and marketing of butter.
Agr. Econ. 272

Tenn. Economics of Marketing Milk in Tennessee. To (1) analyze demand for fluid milk and fluid milk products in major city markets of Tennessee; and (2) study various problems that arise relative to marketing and pricing of milk in Tennessee.
Agr. Econ. & Rur. Sociol. 11

Tenn. The Effect of Price, Price Relationships, Selected Population Characteristics and Income on Fluid Milk Utilization. To learn (1) effect of price and income changes on fluid milk utilization; and (2) rate of substitution among dairy products and between dairy products and other products with various price relationships.
Agr. Econ. & Rur. Sociol. 15 (SM-10) Coop. AMS

Tenn. Study of Comparative Prices Paid Producers for Milk of Manufacturing Grade in Tennessee and the Midwest. To (1) analyze historical differences in prices paid producers for manufacturing grade milk; and (2) learn reasons for differences in prices.
Agr. Econ. & Rur. Sociol. 17 Coop. AMS

Tenn. Fluid Milk Supplies, Prices, and Movement in the Lower Mississippi River Valley Marketing Area. To (1) estimate the supply-consumption balance by areas of population concentration; (2) determine producer raw milk prices and selling prices of bottled milk on a monthly basis by counties or areas of population concentration; (3) determine milk flows on a monthly basis; and (4) evaluate milk flows relative to existing prices.
Agr. Econ. & Rur. Sociol. 156 (SM-10) Coop. AMS

Tex. Fluid Milk Supplies, Prices and Milk Movement in Northeast Texas and Lower Mississippi Valley Marketing Areas. To (1) estimate supply-consumption balance by counties or areas of population concentration; (2) learn producer raw milk prices and selling prices of bottled milk on a monthly basis by counties or areas of population concentration; (3) learn milk flows on a monthly basis; (4) evaluate milk flows relative to existing prices; and (5) learn economies of bulk handling and effects of bulk handling system on movement of fluid milk supplies.
Agr. Econ. & Sociol. 1115 (SM-10) Coop. AMS

Vt. The Amount and Utilization of Milk for Non-Fluid Uses Handled by Local Vermont Dealers. To determine (1) amount of non-fluid reserves and surplus handled by local Vermont dealers; (2) present use of this non-fluid reserve and/or supplies; and (3) effect of present pricing system on quantity of reserve and possible effects of alternate pricing systems.
Agr. Econ. 18 (NEM-13)

Vt. Marketing Milk Through Vermont Schools. To (1) learn extent of milk consumption in State schools; (2) evaluate present methods of milk handling and distribution practices in use; and (3) ascertain what factors contribute to success and what factors hinder development of special School Milk Programs.
Agr. Econ. 69

Va. The Production-Consumption Balance for Milk in Virginia. To (1) evaluate effectiveness of milk bases in maintaining a balance between production and sales; and (2) learn minimum essential reserves of milk for Virginia markets under certain institutional arrangements.
Agr. Econ. & Rur. Sociol. 86050 (NEM-13)

W. Va. The Production-Consumption Balance and Efficient Utilization of Milk for Non-Fluid Uses in West Virginia. To devise and evaluate measures to (1) achieve more satisfactory adjustment of milk supplies to fluid uses; and (2) improve pricing, use, and handling of milk in non-fluid uses.
Agr. Econ. 75 (NEM-13)

Wis. Maintaining and Expanding the Market for Dairy Products. To (1) determine the economic significance of various price plans; (2) appraise their advantages and limitations as they affect seasonal variations in milk supply and use; and (3) determine the costs and practicability of developing supplemental supplies to meet seasonal shortages in fluid milk markets.
Agr. Econ. 734, Coop. AMS

Wyo. Effectiveness of Selected Means for Increasing the Consumption of Dairy Products. To (1) investigate effectiveness of selected methods for increasing consumption of dairy products in State; and (2) study affect on consumption of dairy products in selected markets or institutions of: increasing availability of products to consumers, varying price of products to consumers, and other specific techniques that investigation indicates as having most promise as means of increasing consumption.
Agr. Econ. 685 (WM-36)

Consumer Preference, Acceptance, and Merchandising

Alaska Effectiveness of Methods Designed to Increase the Consumption of Dairy Products. To (1) learn consumption rate and preferences for dairy products in selected Alaskan markets and study possibilities for increasing the use of dairy products in the light of findings as to consumer demand and preferences; and (2) evaluate, in selected markets, effect of sales and promotional techniques and products designed to increase dairy sales and interpret significance of these in terms of needed changes in milk production and distribution.
Agr. Econ. 61 (WM-36)

Colo. Factors Effecting Increases in the Sales of Dairy Products. To (1) discover and test methods and techniques of marketing which may increase sales of dairy products or increase efficiency of their distribution; and (2) measure effect on sales of the new techniques and improved dairy products.
Econ. & Sociol., Dairy Indus. 242 (WM-36)

Idaho The Effect of Quality on the Consumption of Dairy Products. To determine consumer preference and actual per capita consumption (1) when composition and other quality aspects are varied; (2) of different USDA grades of butter and oleomargarine; and (3) of Double A and A grade butters of milk flavor as compared to same grades with more pronounced flavor, when price, advertising, etc., are eliminated from study.
Dairy Husb. 266

Mass. Analysis of New Milk Merchandising Developments. To (1) increase milk consumption by reductions in costs, improvement in quality and availability, health and other appeals by use of 1 and 1/2 gallon containers, vending and dispensing units, alternative pricing techniques, and advertising and education; (2) evaluate potential impact on milk distribution system of 2 containers as: retailer and consumer acceptance, distribution margin, and milk consumption; and (3) evaluate possibility of reducing unit distribution costs by providing price incentives to increase size of orders.
Agr. Econ. 127 (NEM-14)

Mont. The Influence of Flavor and Physical Properties on Consumer Acceptance of Vanilla Ice Cream. To learn influence on consumer acceptance of ice cream of (1) kind and amount of vanilla extract used; (2) quality of dairy products used for mix; (3) holding ice cream for extended periods in home freezer; and (4) body and texture of ice cream.
Dairy Indus. 1014

Mont. Consumer Acceptance of Market Milk Handled in Farm Tanks and in Tank Trucks in Montana. To learn (1) flavor and bacteriological changes of milk held in farm tanks and delivered to processing plant in tank trucks; (2) pasteurization efficiency and resulting flavor after pasteurization of milk gathered from farm tanks in tank trucks; (3) "shelf life" of resulting pasteurized milk after it reaches consumer; and (4) acceptance of resulting pasteurized milk while held in refrigerator before consumption.
Dairy Indus. 1015

Mont. Effectiveness of Selected Methods for Increasing the Consumption of Dairy Products in Montana. To measure in selected markets (1) effect on sales of specific techniques designed to increase consumption of dairy products; (2) merchandising and sales promotion techniques; (3) new or improved dairy products; and (4) pricing plans which encourage volume purchases.
Agr. Econ. 1055 (WM-36)

Nev. Effectiveness of Selecting Methods for Increasing the Consumption of Dairy Products. To measure, in Nevada, the effect on sales of specific techniques designed to increase consumption of dairy products through (1) merchandising and sales promotion techniques; (2) new or improved dairy products; (3) increasing availability of milk; and (4) school lunch program.
Agr. Econ. 44 (WM-36)

N. J. New Methods of Merchandising Fluid Milk. To maintain and increase consumption of milk.
Agr. Econ. 42 (NEM-14)

N. Y. (Cornell) Retail Merchandising of Dairy Products. To search for methods of merchandising dairy products which will maximize their consumer acceptance in the market place.
Agr. Econ. 23 (NEM-14)

N. C. Adapting the Market Structure for Dairy Products to Changing Demand Conditions in the South. To (1) learn from view of dairy processors and distributors changes in cost and sales resulting from innovations in composition of dairy products and sales methods; (2) measure cost of various merchandising techniques for cottage cheese and ice cream, and changes in composition of same products, and their effect on sales; (3) analyze price policies of distributors and retailers with respect to cottage cheese and ice cream; (4) evolve decision making methods for retailers and distributors; and (5) provide North Carolina data on other regional projects proposed under SM-10 to extent required for successful conclusion.
Agr. Econ. HM-6 (SM-10) Coop. AMS

N. C. A Study of Consumer Acceptance of Ice Cream and Other Frozen Desserts as Affected by the Utilization of Fruits and Nuts, Types of Flavoring Materials, Composition, and Methods of Processing. To learn (1) influence of variety and method of preparation of fruits and nuts and means of incorporation into ice cream and other frozen desserts; (2) consumer acceptance of desserts prepared from fruit purees or fruit juices; (3) limits of variations in composition of desserts by consumer preference; and (4) effect of various processing methods on properties of frozen dessert mixes and the finished products.
Anim. Indus., Hort. HM-8

Pa. Basic Appeals in Consumer Acceptance of Milk. To learn attitudes and concepts serving as obstacles to use of milk as a beverage by adults.
Agr. Econ. & Rur. Sociol. 1269 (NEM-14)

Vt. Increasing the Consumption of Milk in Urban Areas of the State of Vermont through the Use of Milk Dispensers of Both the Indoor and Outdoor Type. To (1) learn if milk consumption is increased by the use of milk dispensers to the benefit of the dairyman; (2) study and evaluate factors and standards which must be met for successful operation of milk dispensing machines and operations; and (3) study extent high-priced milk delivery labor can be eliminated by having consumers perform some of these services for themselves.
Agr. Econ. 17

Increasing Milk Consumption by the Use of Home Dispensers. To (1) determine milk dealer and consumer acceptance of a new method of servicing the large family milk consumers; (2) determine if milk consumption is increased by the use of the home type milk dispenser; and (3) study costs involved in the home dispenser operation.
Home Econ. 17 Supplement

Wash. Effect of Certain Merchandising Practices on the Sale of Fluid Milk Products. To determine effects of merchandising practices on sales of fluid milk and cream, i.e., (1) study of merchandising and sales in retail routes; (2) study of merchandising and sales in retail stores; and (3) evaluation of relative effectiveness of merchandising in retail store as compared to the retail route.

Agr. Econ., Dairy Sci. 1213, ES-306

W. Va. Evaluation of the Effects of Retail Vending Machines on the Sale of Fluid Milk, and Cost and Efficiency of Distributing Milk through Vending Machines. To learn (1) effect of vending machines on sales of fluid milk and products in a selected market; (2) if sales through vending machines adversely affect other selling channels; and (3) cost and appraisal of economic feasibility and efficiency of selling through venders.

Agr. Econ. 94 (NEM-14) Coop. AMS

Wis. Consumer Acceptance and Use Practices for New Types of Dairy Products. To (1) secure data to further develop new dairy products or improve existing products to meet consumer demands; and (2) evaluate information for its usefulness in market development by commercial concerns.

Agr. Econ., Dairy & Food Indus., Home Econ. 962

Wyo. Studies in Consumers' Acceptance of Chocolate Milk, Chocolate Drink, and Related Products. To determine (1) the amount of chocolate milk and chocolate drink sold by dairy plants in Wyoming (and neighboring areas) and the composition of the product sold; (2) the effect of the availability of chocolate milk and chocolate drink on the consumption of regular "white" milk; and (3) the effect of composition of chocolate milk and chocolate drink on consumption of the product, and the desired composition in regards to consumer preference.

Agr. Econ., Anim. Prod. 646

Market Information

W. Va. The Effect of Advertising and Promotion on Milk Sales. To measure and compare effects of various advertising and promotional programs of different intensities on sale of milk.

Agr. Econ., Rur. Sociol. 114 (NEM-14)

Maintaining and Improving Quality -
Costs and Returns

Idaho — Effects of "Bulk Handling" Methods of Marketing Milk on the Flavor and Keeping Quality of Bottled Milk and Other Dairy Products. To (1) learn "shelf life" of pasteurized, bottled milk when raw milk is marketed under "bulk handling" as compared to conventional 10-gallon can operations; (2) develop ways other than taste and smell for denoting rancidity to be used as basis for grading milk at farm; (3) make survey of flavor and odor of milk produced by pipe line milkers and marketed by bulk tank system; and (4) learn if bulk handling is applicable to small farms.

Agr. Econ., Dairy Indus. 274

Minn. — Factors Influencing the Market Quality of Cottage Cheese. To (1) survey present quality of cottage cheese sold in state; (2) survey conditions under which cheese is kept while in marketing channels and their effect on quality; and (3) develop procedures for consistently producing high quality cheese.

Dairy Husb. 1620

N. C. — Factors Influencing the Merchandising Quality of Fluid Milk and Related Milk Products. To (1) test various types of dairy equipment useful for improving quality of milk and milk products; (2) study manufacturing problems related to more efficient processing of fluid milk and milk products of high quality; and (3) study composition of milk as it relates to processing and quality.

Anim. Indus. HM-10

Costs, Margins, and Efficiency of Operation

Ala. — Economics of Expanding the Market for Milk through Schools. To study and evaluate (1) economics of marketing milk through schools by selected methods; (2) costs involved by distributors in adjusting their container sizes and milk routes to better service various types of schools; (3) advantages and disadvantages of various container sizes and various sales methods, including different types of dispensers, vending machines, and others to schools and to distributors; and (4) effect of flavored milk on consumption.

Agr. Econ., Dairy Indus. 573 (SM-10) Coop. AMS

Ga. Marketing Milk by the Bulk Tank Method. To learn (1) status of bulk tank milk handling in Georgia; (2) capital outlay for converting to bulk tank equipment by size of operation; (3) fixed and variable costs of farm operation, comparing bulk tank handling with present methods by size of operation; (4) number of producers and quantity of milk produced by operators whose per unit cost would be reduced and by operators whose cost would be increased by bulk tank; (5) cost of transporting and receiving milk at plants by bulk handling as compared to cans; and (6) analyze economic impact of bulk tank handling of milk in Georgia.

Agr. Econ. 305

Ill. Expanding Markets, Pricing and Lowering Distribution Costs for Milk and Its Products. To (1) expand markets so that consumption of milk will be more nearly in line with needs of an adequate diet; (2) develop and expand methods for pricing milk and cream; (3) lower costs of processing, manufacturing, and distributing milk; (4) measure changes in dealers' margins for selling milk through stores to homes; and (5) measure changes in per capita sales of milk, cream, and other milk products in Illinois.

Agr. Econ. 05-343

Ind. An Economic Analysis of Recent Fluid Milk Plant Failures in Indiana. To (1) determine why fluid milk plants fail; and (2) recommend adjustments to be made in fluid milk plants to avoid economic errors of plants that have failed.

Agr. Econ. 723

Ind. Selection of Optimum Production and Marketing Activities for Dairy Processing Plants. To (1) learn and evaluate current decision processes used by dairy plant managers in selecting alternative products and processes; (2) analyze the optimum plant output of alternate products possible within physical supply and technological limitations and existing pricing alternatives; and (3) evaluate usability of activity analysis as a management planning tool in dairy plants.

Agr. Econ. 965

Kans. Resource Efficiency in Kansas Dairy Marketing and Processing Firms. To provide economic choice criteria to managers of dairy marketing facilities in the Plains States as information is needed on techniques of organizing efficient marketing firms under widely varying product and factor prices, fluctuating milk output and changing demands for Plains States dairy products.

Agr. Econ. 380 (NCM-12)

Maine — Efficient Utilization of Milk for Non-Fluid Uses. To (1) develop better ways to handle and use milk in excess of fluid uses; and (2) determine costs and margins for handling milk for non-fluid uses in fluid milk plants.
Agr. Econ. 46 (NEM-13)

Mass. — An Economic Study of Farm to Market Bulk Tank Holding and Hauling Milk. To estimate the economic feasibility of using bulk tank holding on farms and tank truck delivery to market, to replace holding and hauling milk in 40-quart cans.
Agr. Econ. 43

Minn. — Marketing of Farm Products and Purchase of Farm Supplies--A. The Marketing of Dairy Products. To study and analyze the organization, operation, financing, and other problems of marketing agencies, milk and cream assembly, outlets, transportation and related phases, with particular emphasis to be placed on factors affecting efficiency, with the aim of improving results.
Agr. Econ. 1101

Minn. — Economic Analysis of Milk Drying Plants. To (1) ascertain how milk drying plants which were established or expanded to meet war needs will adjust their operations to peace-time markets; (2) delineate problems faced by such enterprises; and (3) seek solutions for them.
Agr. Econ. 1118

Minn. — The Effect of New Developments in Milk Distribution upon Markets and Individual Firms. To (1) determine adjustments which milk distributing plants are making to new developments in milk distribution; (2) estimate revenues, costs, and profit opportunities of various adjustment alternatives, such as changes in types and sizes of containers, scale of plant, extent of distribution areas, and sales outlets used; (3) study input-output relationships of various adjustment alternatives; and (4) evaluate possible immediate and long-run effects in adoption of the various adjustment alternatives.
Agr. Econ., Dairy Husb. 1123 (NCM-12)

Minn. — Analysis of the Efficiency of Milk Distribution in Minnesota Markets. To (1) study organization of milk distribution and recent changes in it in metropolitan and local markets in State; (2) analyze efficiency of fluid milk plant operations and milk distribution, including analysis in (a) physical input-output terms and (b) total and per unit cost terms; (3) compare relative efficiency of different methods and systems of plant operations and distribution and to study possible effects on prices to consumers and farmers and returns of handlers; and (4) learn adjustments and changes in milk plant operations and distribution which will promote greater efficiency and market expansion.
Agr. Econ. 1126

Miss. Effect of Bulk Tanks on Cost of Marketing Milk in Mississippi. To (1) estimate and compare costs of cooling and storing, hauling and receiving milk in bulk tanks and in cans in Mississippi; (2) summarize cost comparisons that have been reported for other areas; and (3) compare cost estimates obtained for Mississippi to those reported for other areas.

Agr. Econ. HA-27

Nebr. Adapting the Marketing Structure for Nebraska Dairy Products to Changing Patterns of Utilization and Changing Technology. To (1) determine means of adapting marketing structure for Nebraska dairy products to changing patterns of use and technological innovations in assembly, processing, and distribution with emphasis on ways to increase efficiency in use of labor and physical facilities; and (2) make an evaluation of economic effects of trade practices, national, state, and local government regulation, state-national marketing service and educational programs, and Federal price support programs, and other institutional factors.

Agr. Econ., Dairy Husb. 454 (NCM-12)

N. H. The Costs of Processing and Distributing Dairy Products in New Hampshire. To learn costs of processing and distributing milk and milk products in New Hampshire local markets.

Agr. Econ. 129

N. Mex. The Economics of Milk Marketing in New Mexico. To learn (1) commercial production of fluid milk by areas and seasons, and channels thru which it is distributed; (2) methods and practices of pricing milk; (3) cost of handling milk by can method and bulk tank method in Rio Grande Valley, and effect methods have on dairy profits; and (4) marketing costs and margins for fluid milk in selected areas.

Agr. Econ. 39

N. Dak. Dairy Marketing Problems in North Dakota. To (1) survey facts and data on production, marketing, and consumption of North Dakota butter and other dairy products so as to provide information for improving marketing of the product, with application of findings to problems common to dairy industry in four-state Great Plains regions; and (2) evaluate butter marketing structures in terms of comparative marketing costs and pricing procedures to seek areas of improvement.

Agr. Econ., Dairy Husb. 3-5 (NCM-12)

Ohio Marketing Ohio Milk and Cream--7. Increasing Efficiency in the Transportation of Milk from Farm to Market. To determine (1) possibilities of bulk milk transportation from farm to market in Ohio; (2) extent by which milk routes could be reorganized to reduce transportation rates; and (3) producer reactions to consolidation of truck routes.

Agr. Econ. & Rur. Sociol. 39-7

Okla. Marketing Costs and Charges for Bulk Milk Pickup at Farms in Oklahoma. To learn (1) effect on costs of bulk milk pickup of previous locations, sizes, types, and arrangements of bulk tanks on farms; (2) fixed and variable cost functions for transporting milk from farms to central receiving stations; (3) costs of unloading bulk milk at central receiving stations; (4) from the three stages of hauling the total fixed and total variable costs of bulk milk pickup under present routing system and operating procedures, changes in routing systems, operating procedures and farm arrangements which would reduce costs of bulk milk pickup, alternative methods of pricing transportation service; and (5) changes in dairy enterprise operation under bulk pickup system as related to capital requirements, financing, labor utilization, tank sizes, and operating costs.
Agr. Econ. 938

Oreg. Relative Costs of Serving Coffee and Milk in Restaurants. To learn (1) relative costs of serving coffee and milk in various kinds and sizes of eating establishments in Oregon; and (2) what differential can be justified in prices charged in eating places.
Agr. Econ. 150-8

Pa. Patterns of Resource Allocation and Organization of Representative Pennsylvania Market-Milk Dealers. To (1) learn present organization of resources and operating practices of representative market milk dealers; (2) learn changes in distribution organization over a period of years, identifying technological innovations causing such changes; (3) develop input-output data indicative of ideal resource adjustments to changing technology; and (4) develop meaningful measures of total output for multiple product firms.
Agr. Econ. & Rur. Sociol. 1315-A

S. C. Economic Analysis of Selected Factors Associated with the Bulk Tank and Can Methods of Handling Milk on South Carolina Grade "A" Dairy Farms. To analyze and compare bulk and can systems of handling milk on South Carolina grade "A" dairy farms with regard to functions performed, time requirements, labor requirements, and losses due to stickage and spillage.
Agr. Econ. & Rur. Sociol. 424

Vt. Marketing Margins as Associated with Changes in Consumer Services. To (1) learn effects on costs and consumer satisfaction of packaging and selling milk by various methods; and (2) analyze changes in costs and consumer satisfaction occurring with changes in pricing and consumer services.
Agr. Econ. 16 (NEM-17)

Vt. Milk Processing and Delivery Costs in Vermont. To obtain up-to-date information on costs of processing and delivering milk in Vermont markets.
Agr. Econ. 64

Va. Distributing Operations of Milk Pasteurizing and Bottling Plants. To (1) analyze the tasks performed and the work content for the various methods of getting milk from the plant to the consumer; (2) demonstrate the effects of alternative delivery practices and retail pricing methods on unit distribution costs; and (3) explore possible ways of increasing efficiency and reducing costs of distributing milk.
Agr. Econ. 86093

Wis. Economic Aspects of Cheese Production and Marketing--A. Reducing Costs of Cheese Manufacturing and Curing. To reduce the costs of manufacturing and curing of cheese through (1) better plant and business organizations and (2) improved manufacturing methods.
Agr. Econ., Dairy Husb. 733-A

Wis. Adapting the Marketing Structure for Dairy Products to Changing Patterns of Utilization and Changing Technology. To (1) describe briefly existing organization of milk distribution in Milwaukee market area; (2) determine influence of size and type of container on labor and equipment needs; (3) synthesize these elements into alternative organizations of distribution service for firms of various sizes; and (4) test such hypothetical reorganizations by comparing costs for present and reorganized systems.
Agr. Econ. 877 (NCM-12)

Transportation, Storage, and Interregional Competition

Utah Needed Adjustments in the Dairy Industry of Utah. To determine (1) location, volume, and other descriptive data on milk production, procurement, processing, and distribution including interstate movement of milk produced in Utah; (2) costs of procuring and distributing milk using dollar and physical units of measure; and (3) methods of expanding markets for milk and its products in various trade channels available.
Agr. Econ. 278 (WM-15) Coop. AMS

Wash. An Economic Appraisal of Alternative Transfer Techniques in the Movement of Bulk Milk from Producer to Processor. To learn (1) optimal types and utilizations of equipment for movements of bulk tank milk from producer to processor under varying conditions; and (2) from companies operating bulk-tank trucks (a) the costs of operating alternative types and sizes of vehicular equipment under varying conditions as: distance, road conditions, volume per shipper, and distance between shippers, and (b) costs of establishing, maintaining, and operating various types and sizes of milk transfer stations, as receiving rooms or assembly points.
Agr. Econ., Dairy Sci. 1278 (WM-15)

Cooperatives

Pa. Costs of Marketing Dairy Products. Efficiency Standards for Milk Processing and Distribution by Farmer Cooperatives. To determine factors associated with efficient processing and distribution of fluid milk in Pennsylvania.

Agr. Econ. & Rur. Sociol. 1080 (NEM-13)

Pa. Membership Relations in a Milk Marketing Organization. To (1) measure extent and intensity of members' participation in a milk marketing organization; (2) ascertain the members' conception of and attitudes toward the organization; (3) find what personal, social, and economic forces influence these attitudes; (4) investigate the personal, social, economic, and organizational factors influencing members to drop out of the organization; and (5) evaluate effectiveness of organizational practices in performing milk marketing functions.

Agr. Econ. & Rur. Sociol., Dairy Sci. ES 442 Coop. FCS

Government Programs

Pa. Production Responses and Receipts of Milk in Primary and Secondary Markets with Different Types of Pooling. To learn (1) differences in rates of milk production on farms supplying secondary markets using handler pools and on farms supplying a primary market using a market-wide pool; and (2) differences in receipts of milk plants using same markets.

Agr. Econ. & Rur. Sociol. 1262-B (NEM-13)

Wis. Analysis of Economic Factors Affecting Entrepreneurial Decisions in the Agricultural Processing Industries. To determine (1) factors to which entrepreneurs respond in making decisions on procurement, processing, marketing, economic growth and development; (2) relationships among these factors insofar as possible; and (3) means whereby entrepreneurs can and do respond to factors affecting their decisions.

Agr. Econ. 876 Coop. AMS

Utilization (Economics of)

Ind. More Efficient Transportation Patterns and Marketing Methods for Indiana Milk. To (1) learn how given levels of milk supplies can be most efficiently processed and channelled from areas of production to areas of use, including consideration of out-of-state sources of supply and potential out-of-state markets; (2) learn how improvements can be made in transportation, processing, and utilization of dairy products including seasonal surpluses; and (3) predict future changes in utilization patterns and their effect on dairy industry.

Agr. Econ., Dairy Husb. 989 (NCM-12)

P. R. Retail Price Relationships and Movements of Milk as Related to Costs of Distributing Milk Through the Several Retail Outlets in Puerto Rico. To (1) learn retail outlets for fluid milk used in Metropolitan Area and in other section of Island; (2) learn geographical distribution and areas served by firms engaged in distribution; (3) learn and compare costs for servicing milk thru different retail outlets; (4) learn and compare costs of servicing fresh milk from Metropolitan Area to other sections of Island thru different retail outlets; (5) study existing price relationships and compare them to prices based on costs of services rendered; and (6) study movement of milk and evaluate factors determining direction of flow.

Agr. Econ. & Rur. Sociol. 115 (SM-10)

REGIONAL PROJECTS

NCM-12 Adapting the Marketing Structure for Dairy Products to Changing Patterns of Utilization and Changing Technology.

Subproject 2: Problems of Economic Adjustment in the Dairy Industry in Areas of Sparse Production. To (1) investigate farm handling practices for milk and cream in the northern plains states and analyze their relation to quality; (2) examine alternative methods of butterfat assembly and appraise their relative advantages; (3) ascertain the relation of prices paid to producers to quality and volume of butterfat supplies; and (4) evaluate possible adjustments in processing and merchandising dairy products in the northern plains states.

Subproject 3: Effects of New Developments in Milk Distribution upon Markets and Individual Firms. To (1) appraise the effects of recent and anticipated developments in milk distribution; and (2) recommend adjustments that will promote efficiency in milk distribution.

Subproject 4: Opportunities for Expanding Milk Consumption in Schools. To (1) determine actual and potential consumption of milk in schools; (2) determine reasons for variation in milk consumption rates among schools; and (3) develop practical suggestions for expanding milk consumption in schools.

Subproject 5: Marketing Surplus Milk in Fluid Milk Markets. To develop information and analyses which will enable dairy companies, producers' cooperatives and others to evaluate the desirability of alternative methods of providing facilities and institutional arrangements for efficient handling of surplus milk.

Ill. B, Ind. K, Iowa A, Kans. G, Ky. B, Mich. B, Minn. G., Mo. A, Nebr. G, N. Dak. G, Ohio B, S. Dak. A (2 projects), Wis. G

NEM-13 The Production-Consumption Balance and Efficient Utilization of Milk for Non-Fluid Uses in the Northeastern Milksheds. To (1) devise and evaluate measures for achieving more satisfactory adjustment of milk supplies to fluid uses; and (2) devise and evaluate measures for improving the pricing, utilization, and handling of milk in non-fluid uses.

Conn. (Storrs) B; Maine A and G; Md. A and B; Mass. B; N. H. B; N. Y. (Cornell) B (2 projects); Pa. A, B, I, and J; R. I. A and B; Vt. B; Va. B; W. Va. B

NEM-14 Merchandising Milk and Other Dairy Products. To determine and evaluate means of increasing the consumption of milk and other dairy products.

Mass. C, N. J. C, N. Y. (Cornell) C, Pa. C, R. I. B, W. Va. C and E

SM-10 Adapting the Market Structure for Dairy Products to Changing Demand and Supply Conditions in the South. To (1) measure the effects of merchandising techniques on sales of dairy products; (2) determine the effect of price and income changes on fluid milk supply and utilization; (3) determine the substitutability among dairy products and between dairy products and other products; (4) estimate prospective supply and utilization of dairy products; (5) evaluate alternative methods of disposing of surplus milk; and (6) determine milk supply and price relationships and the movement of milk among markets.

Ala. G, Ark. B, Ga. B (2 projects), La. B, Miss. B, N. C. C, P. R. K, S. C. B, Tenn. B (2 projects), Tex. B

WM-15 Needed Adjustments in the Dairy Industry of the West. Sub-title II: Expansion of Fluid Milk Distribution Areas. To (1) determine the extent, conditions, and methods by which milk distribution areas have been expanded in the Western Region; (2) determine and evaluate the impact of the expansion of distribution areas on retail milk prices, on availability of milk and distribution services to consumers, and on market outlets for farmers; (3) analyze (utilize existing studies insofar as possible) and determine physical input-output requirements, unit costs of various sized plants, and different systems of marketing fluid milk from standpoint of the following functions: (a)procurement, (b) processing, and (c) delivery; and (4) determine and suggest methods and practices which can make fluid milk marketing more efficient from standpoint of use of resources.

Colo. B, Utah H, Wash. H

WM-36 Effectiveness of Selected Means of Increasing the Consumption of Dairy Products. To measure the effect on sales of specific techniques designed to increase the consumption of dairy products in Western Markets through (1) merchandising and sales promotion techniques used; (2) new or improved dairy products; (3) pricing plans which encourage volume purchases (quantity discounts, store differentials, multiple quart container prices, etc.); (4) increased availability of milk; and (5) school lunch program.

Alaska C, Ariz. B, Colo. C, Hawaii B, Idaho B, Mont. C, Nev. C, Oreg. B, Wyo. B

LIST OF COMPILATIONS OF FEDERAL-GRANT RESEARCH PROJECTS
AT STATE AGRICULTURAL EXPERIMENT STATIONS

ARS-23-8: Part Numbers	Subject-Matter Area	Title of Section
1	Agricultural Chemistry	Agricultural Chemistry
2	Agricultural Economics	a. Prices, Incomes, & General Studies of Commodities & Industries b. Farm Management c. Land Economics d. Farm Finance & Taxation
3	Agricultural Engineering	a. Land & Water Use & Development b. Power Machinery & Equipment c. Farm Structures & Materials
4	Animal Husbandry	a. Beef Cattle b. Sheep & Goats c. Swine
5	Dairy Husbandry	Dairy Cattle
6	Dairy Technology	Dairy Technology
7	Entomology & Economic Zoology	a. Field Crop Insects b. Fruit, Nut & Vegetable Insects c. Miscellaneous Insects & Economic Zoology d. Insecticides
8	Field Crops	a. Cereal Crops b. Oil, Fiber, Tobacco & Sugar Crops
9	Food Science & Technology	a. Food Chemistry, Microbiology, Sanitation & Public Health b. Food Engineering, Processing, Product and Process Development, Utilization and Waste Disposal c. Food Quality & Standards, Acceptance, Preference, & Marketing
10	Forage Crops, Pastures & Ranges	Forage Crops, Pastures & Ranges
11	Forestry	Forestry

ARS-23-8: Part Numbers	Subject-Matter Area	Title of Section
12	Fruits & Nuts	Fruits & Nuts
13	Home Economics	a. Human Nutrition b. Housing c. Clothing & Textiles d. Foods-Consumer Quality & Utilization e. Household Economics & Management
14	Economics of Marketing	a. Field Crops b. Fruits & Vegetables c. Livestock, Meats & Wool d. Dairy Products e. Poultry & Poultry Products f. Forest Products & Ornamental & Drug Plants g. Cross-Commodity & Functional Studies
15	Meteorology	Meteorology
16	Ornamental & Drug Plants	Ornamental & Drug Plants
17	Plant Pathology & Bacteriology	a. Plant Pathology, Botany, & Diseases of Miscellaneous Crops b. Diseases of Field Crops c. Diseases of Fruit Crops d. Diseases of Vegetable Crops
18	Plant Physiology & Nutrition	Plant Physiology & Nutrition
19	Poultry Industry	Poultry Industry
20	Rural Sociology	Rural Life Studies
21	Soils	a. Soil Chemistry & Microbiology b. Soil Fertility, Management & Soil-Plant Relationships c. Soil Physical Properties, Conservation & Classification
22	Vegetables	a. Vegetable Crops b. Potatoes
23	Veterinary Science	Veterinary Science
24	Weeds	Weed Control